EXHIBIT D 13-cv-01727

IN THE UNITED STATES DISTRICT COURT DISTRICT OF MINNESOTA

TCKY, LLC,)
Plaintiff,) Case No.: 13-cv-01727
v.)
DOES 1-17,)
Defendants.)

DECLARATION OF DARREN M. GRIFFIN

- 1. I, Darren M. Griffin, make this declaration based on my personal knowledge. If called upon to do so, I will testify that the facts stated herein are true and correct.
- 2. I have been retained by Crystal Bay Corporation ("CBC"), a corporation of South Dakota, as a software consultant in its technical department. CBC provides forensic investigation services to copyright owners.
- 3. The forensic software used by CBC routinely collects, identifies and records the Internet Protocol ("IP") addresses in use by those individuals who employ the BitTorrent protocol to share, copy, reproduce and distribute copyrighted Movies.
- 4. An IP address is a unique numerical identifier that is automatically assigned to an internet subscriber by the subscriber's Internet Service Provider ("ISP"). Using logs kept in the ordinary course of business, ISPs maintain records of the IP addresses assigned to their subscribers. Once provided with an IP address, plus the date and time of

the detected and documented infringing activity, ISPs can use their subscriber logs to identify the name, address, email address, phone number and Media Access Control number of a user/subscriber.

- 5. Only the ISP that has assigned a particular IP address for use by a subscriber can correlate that IP address to a specific subscriber. From time to time, a subscriber of internet services may be assigned different IP addresses by their ISP. Thus, to correlate a subscriber to an IP address, the ISP also needs to know when the IP address was used. Unfortunately, many ISPs only retain the information necessary to correlate an IP address to a particular subscriber for a very limited period of time.
- 6. Plaintiff retained CBC to identify the IP addresses of those BitTorrent users who were copying and distributing Plaintiff's copyrighted movie as identified in Complaint Exhibit A (the "Movie"). CBC directed me to review, analyze and attest to the results of the investigation.
- 7. During the performance of my duties as detailed below, forensic software provided by CBC was used to scan peer-to-peer networks for the presence of infringing transactions.
- 8. After reviewing the evidence logs, the transactions and the IP addresses of the users responsible for copying and distributing the Movie were isolated.
- 9. Through each of the transactions, the computers using the IP addresses identified in Complaint Exhibit B transmitted a copy or a part of a copy of a digital media file identified by the hash value set forth in Complaint Exhibit B. The IP addresses, hash values, dates and times contained in Complaint Exhibit B correctly reflect what is

contained in the evidence logs. The subscribers using the IP addresses set forth in Complaint Exhibit B were all part of a "swarm" of users who were reproducing, distributing, displaying or performing the copyrighted Movie identified in Complaint Exhibit B.

- 10. Moreover, the users were sharing the identical copy of the Movie. A digital copy of an audiovisual Movie can be uniquely identified by a unique, coded, string of characters called a "hash checksum." The hash checksum is a string of alphanumeric characters generated by a mathematical algorithm known as U.S. Secure Hash Algorithm 1 or "SHA-1", which was developed by the National Security Agency and published as a U.S. government standard. Using the hash tag identified in Complaint Exhibit B, I confirmed that the users identified as Doe Defendants in Complaint Exhibit B reproduced and distributed the same copy of the Movie.
- 11. The CBC software analyzed each BitTorrent "piece" distributed by each IP address listed in Complaint Exhibit B and verified that reassembling the pieces using a specialized BitTorrent client results in a fully playable digital motion picture.
- 12. The software uses a geolocation functionality to confirm that all IP addresses of the users set forth in Complaint Exhibit B were located in this Judicial District. Although an IP address alone does not reveal the name or contact information of the subscriber, it does reveal the location of the Internet line used for the transaction. IP addresses are distributed to ISPs by public, nonprofit organizations called Regional Internet Registries. These Registries assign blocks of IP addresses to ISPs by geographic region. In the United States, these blocks are assigned and tracked by the American

Registry of Internet Numbers. Master tables correlating the IP addresses with local regions are maintained by these organizations in a publicly available and searchable format. The geographic location of an IP address can be further narrowed by cross-referencing this information with secondary sources such as data contributed to commercial databases by ISPs.

- 13. As set forth in Complaint Exhibit B, I have confirmed not only that the users distributed the files in this Judicial District, but also the specific location (city/town) where the distribution took place.
 - 14. The targeted dates of the swarm in this matter cover a short period of time.
- and provide users with exactly the same file comprising exactly the same pieces. The term "piece" is a term of art identifying a portion of a particular file. Based on information and belief, torrent swarms for popular files have been known to be available for over 6 years. The initial seeder (of a parent file) uploads the content and then promotes the torrent file through online forums or websites. Users then have access to the torrent file over the same forums or websites and can join a link to the torrent swarm. Users receive the pieces of the initial seeder and provide those pieces to other users. The transfer occurs piece-by-piece so that the initial pieces from the seeder get passed from one user to the next user.
- 16. A torrent swarm might become smaller after months or years which slows down the process of file sharing activity but still renders the file fully available. A primary factor determining the size of a swarm is the popularity of the product that the file contains (movie, audio, TV series, etc.). For example, a recently released movie can lose popularity

within weeks or months, whereas a famous album of a rock band might continue to be popular for several years.

- 17. The actions of individuals who downloaded a movie on a particular date in time are connected to the actions of individuals who later downloaded the same movie (the same file) as part of the same swarm in at least the following ways:
- a. A file with a particular hash value downloaded by an individual over that time period can ultimately be traced to a single parent file (i.e., the actions relate back to the same initial seed of the swarm);
- b. The swarm expands over that time period to include additional individuals based on uploading and downloading of pieces of the same file with the same hash value (i.e., the copying by each individual further advances the series of additional copies of the Movie that began with the initial seed and continued through the actions of other individuals such that all individuals act under the same system); and
- c. An individual operating a computer with BitTorrent software left "on" remains a participant of a swarm with respect to any file marked for participation in that swarm (i.e., each individual shares pieces that originated from the same (identical) file, and opens their computer to allow others to connect and receive those pieces).

FURTHER DECLARANT SAYETH NOT.

DECLARATION

PURSUANT TO 28 U.S.C. § 1746, I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on day Off of July, 2013.

By:

Darren M. Griffin